



February 2014

# The Terrifying Liberation of Labor

Tim Kane

Follow this and additional works at: <http://scholarship.law.nd.edu/ndjlepp>

### Recommended Citation

Tim Kane, *The Terrifying Liberation of Labor*, 20 NOTRE DAME J.L. ETHICS & PUB. POL'Y 815 (2006).  
Available at: <http://scholarship.law.nd.edu/ndjlepp/vol20/iss2/12>

This Essay is brought to you for free and open access by the Notre Dame Journal of Law, Ethics & Public Policy at NDLScholarship. It has been accepted for inclusion in Notre Dame Journal of Law, Ethics & Public Policy by an authorized administrator of NDLScholarship. For more information, please contact [lawdr@nd.edu](mailto:lawdr@nd.edu).

# THE TERRIFYING LIBERATION OF LABOR

TIM KANE\*

The future of American worker as a topic is fraught with uncertainty and controversy, despite widespread agreement about the direction of the winds of economic change. Two overlapping trends appear obvious to everyone: globalization and accelerating technological change. Before 2001, these trends were interpreted optimistically by most observers.<sup>1</sup> But following the U.S. recession of 2001, capped as it was by the terror attacks on September 11th, America's optimistic post-Cold War mindset has been replaced by a resilient pessimism.<sup>2</sup>

Current measures of public confidence are sickly. Certainly one reason is because for many years the monthly U.S. employment report showed declines, often steep, in the number of U.S. payroll jobs. In manufacturing alone, one and a half million positions were slashed *after* the 2001 recession officially ended, capping forty-two straight months of losses.<sup>3</sup> The question many observers ask is: Did the 2001 recession actually end? This question is so common that our economy is often described as being in a jobless recovery.<sup>4</sup> A flood of pessimistic articles have warned of threats to the American worker: offshore outsourcing, stagnant wages, and the decline of organized labor versus corporate power. What these analyses lack is a broad conceptual framework that contextualizes faddish dangers.

From an objective macroeconomic point of the view, a more accurate question to ask is if the 2001 recession ever began. According to the textbook definition of two consecutive quarters

---

\* Tim Kane, Ph.D., is the Director of The Heritage Foundation's Center for International Trade and Economics. His research assistant, Denford Madenyika, has a Masters in International Studies from North Carolina State University.

1. See Peter Schwartz & Peter Leyden, *The Long Boom: A History of the Future 1980–2020*, WIRED, July 1997, at 115.

2. See, e.g., Jacob Hacker, *False Positive*, NEW REPUBLIC, Aug. 16 & 23, 2004, at 14; David J. Rothkopf, *Just As Scary As Terror: Anyone Seen Our Economic Policy?*, WASH. POST, July 25, 2004, at B1.

3. Author calculations of data are from the Bureau of Labor Statistics, U.S. Dep't of Labor.

4. See Daniel Aaronson et al., *Assessing the Jobless Recovery*, FED. RESERVE BANK OF CHI.: ECON. PERSP., Second Quarter 2004, at 2, available at [http://www.chicagofed.org/publications/economicperspectives/ep\\_2%20Qtr\\_%202004\\_Part\\_1.pdf](http://www.chicagofed.org/publications/economicperspectives/ep_2%20Qtr_%202004_Part_1.pdf).

of GDP decline, a recession never occurred in 2001. Surely that misses the point as well. Even though the economy was growing impressively during 2002–2005 in terms of GDP, it was perceived (wrongly) to be growing without any apparent need for additional labor. We can easily comprehend how a time of dramatic economic change, even when that change is positive, is laden with inherent uncertainty that creates a sense of fear. Faced with the prospect that their economy may simply not need them, many American workers are in a state of quiet terror about the future of the labor force.

If most of the pessimistic analyses that substantiate worker angst have no deep, long-term conceptual framework, it remains a riddle why they are so popular. There is something genuine to the story of workforce stagnation, even if macro indicators say otherwise. Then it must be something beyond the numbers. Perhaps fear is simply interwoven into our times, with foreign terrorists wanting to kill us and foreign workers wanting to steal our jobs. But I suspect another factor is in play.

There is a natural tension between personal freedom and collective security; a tension resolved historically in American culture by an emphasis on individuality—higher risks, responsibilities, and rewards. However, a perception of rising relative income inequality, coupled with a latent fear of accelerating change, is perhaps tipping the balance. Yale Political Scientist Jacob Hacker argues that “insecurity is something that more and more Americans, even the relatively well off, are confronting.”<sup>5</sup> Hacker is one of the more eloquent pessimists and describes what he sees as the *Great Risk Shift*, the title of his forthcoming book.<sup>6</sup> There is some truth in Hacker’s vision, but not the whole truth. Ultimately, it mirrors the ancient attitude that characterizes freedom itself as a threat. This voice refers to the free market as “untrammelled” and pure capitalism as equivalent to uncultured nature, red in tooth and claw. No amount of prosperity satisfies these critics, just as it does not satisfy economic man who is insatiable. This is, after all, the first lesson of economics, which is the study of scarcity and insatiable appetites.

I believe that the synthesis of these two realities—genuine prosperity on the one hand with rising anxiety on the other—is not resolved in terms of risk shifting, inequality rising, or any other description of the distribution of resources. I believe the paradox is rooted in how we produce, not how we consume. If we see modernity for what it is—incessant progress—then we rec-

---

5. Hacker, *supra* note 2, at 14.

6. JACOB HACKER, *GREAT RISK SHIFT* (forthcoming 2006).

ognize the experience of the American workforce for what it is—a terrifying liberation of labor.

Understanding the experience of modern labor as a liberation begins with the admission that living standards are improving. This is a difficult admission, for liberals and conservatives both, but it is the first and most important truth. Rising wealth comes at a cultural price, which is the Luddite specter of a fully automated future. This strikes a cultural nerve, but the specter of automation is actually as old as industrialization itself. What makes our generation's experience with automation different is speed. Changing technologies are constant, yet the pace of change has blurred any sense of normalcy. Consequently, the challenge faced by capitalism is uncertainty. A nagging, opaque, and very personal uncertainty: what kind of jobs will the future hold for us?

As a process, the liberation of labor is represented by the displacement of human muscle with machine power. Joseph Schumpeter famously described this in terms of "creative destruction" where old techniques and firms are replaced by new ones.<sup>7</sup> This process yields a growth path for personal incomes that is noisy, rough, and variable, but inevitably upward sloping. Consequently, the liberation framework distinguishes between minor unforeseeable recessions and daunting uncharted implications. It also recognizes the vitality of decentralization and that the liberation of labor is the product of the free market rather than the centrally-planned state.

## I. LIBERATION OF LABOR

The idea of liberation of labor is not an original one. In the terminology of contemporary economics, it is described as rising productivity due to labor-saving technological progress. The 2004 book *The New Division of Labor: How Computers Are Creating the Next Job Market* by Ivy League economists Frank Levy and Richard Murnane is an updated explanation of how this progress works.<sup>8</sup> But it is an idea with a lengthy heritage dating back to Adam Smith and Karl Marx.

Perhaps the single greatest contribution of Adam Smith was his pioneering description of labor specialization as central to the increasing wealth of a society because it yields higher productivity per worker. But Smith also described "the invention of a

---

7. JOSEPH SCHUMPETER, CAPITALISM, SOCIALISM AND DEMOCRACY 82–85 (1975).

8. FRANK LEVY & RICHARD MURNAME, THE NEW DIVISION OF LABOR: HOW COMPUTERS ARE CREATING THE NEXT JOB MARKET (2004).

great number of machines which facilitate and abridge labour, and enable one man to do the work of many” as one of the three underlying components of the division of labor.<sup>9</sup> Interestingly, Smith was unclear on the potential impact of these “very pretty machines,” suggesting that division led to routinization with led to mechanization, implying that the state of work could become dehumanizing while unambiguously enriching.<sup>10</sup>

Marx, famous today as the iconic critic of capitalism, proclaimed as fervently as any modern corporate evangelist that capitalism was the penultimate crucible of innovation and higher productivity.<sup>11</sup> Marx believed in the basic notion of progress. While his conception of the end-state, as well as some of the synthetic conditions of that state (such as the abolition of private property), have been widely discredited, his vision of the process remains largely intact.

Although this process of new labor-saving innovation is well understood among economists nowadays as a morally good process, it is an issue that was most intensively debated during the 1950s and 1960s.<sup>12</sup> At the time, factory automation was visible and destructive to traditional work. Also at the time, conventional wisdom held that the labor force transformation was binary, going from rural to urban, agricultural to industrial. The urban, industrial economy was considered the end-state, and so the large-scale automation of the factory was a shock to that binary paradigm. Workers without work in the industrial center could hardly be considered anything other than a threat to stability.

Such fears were addressed most perceptively by Nobel economist Herbert Simon. In an obscure 1960 essay, recognizing that most early human labor involved muscle power replaced by engineered power and recognizing that man might lose all of his absolute competitive advantages, Simon queried, “Won’t a point be reached where men are less productive than machines in *all*

---

9. ADAM SMITH, *WEALTH OF NATIONS* 7 (Edwin Cannan ed., Random House 1937) (1776).

10. *Id.* at 9.

11. See KARL MARX, *DAS KAPITAL* (Gateway Editions 1999) (1894).

12. See Jaap H. Abbring & Jeffrey R. Campbell, *Creative Destruction in Local Markets*, FED. RESERVE BANK OF CHI.: ECON. PERSP., Second Quarter 2004, at 50–51, available at [http://www.chicagofed.org/publications/economicperspectives/ep\\_2%20Qtr\\_%202004\\_Part\\_4.pdf](http://www.chicagofed.org/publications/economicperspectives/ep_2%20Qtr_%202004_Part_4.pdf).

processes, hence economically unemployable?"<sup>13</sup> His answer was no.

Before we explore Simon's answer, it might be helpful to consider who he was. It might be even more helpful to walk through the economic history of human progress in a few hundred words or so. The next few paragraphs describe the liberation of labor in retrospect.

Over time, the nature of work has gone through one revolution after another, but human history began without a distinction between work and survival. Survival was a daily struggle for man the hunter-gatherer. The agricultural revolution was the first to change how human society was organized, and its immediate achievement was a moderation of survival pressures. Great cities arose from the stability that agriculture gave, and from those came the glacial but persistent inventions: writing, alphabets, irrigation, and metallurgy. Each specialization, each technology, alleviated the struggle for survival and changed the economy gradually, with a number of equilibriums punctuated by industrial revolutions.

America today is mid-stream in a revolution of work. One realizes the old aphorism is true: "the only constant is change." This is a labor revolution without end, not a singular metamorphosis. No longer do we face the basic pressures of survival, clearly. Food is harvested by a small percentage of the population, while other basic needs are increasingly provided by highly capitalized factories: clothing, transportation, shelter, and communication. Leisure is routine. Fundamentally, humans have been liberated from working to protect, feed, and clothe themselves—basic survival—in order to return to the essentials of nurturing, healing, educating, and entertaining one another.

With two centuries of experience, the consequences of the liberation of labor are much clearer to us than they were to Smith or Marx. Casual observers have a better view of the modern economy than those specialists did, mainly because we have more and better data. If we metaphorically think of the economist as a medical doctor, then the "patient" is the human economy, a patient that is growing very rapidly. The typical per capita growth rate for most advanced economies has been roughly two percent a year for nearly two hundred years,<sup>14</sup> meaning that the

---

13. Herbert A. Simon, *The Corporation: Will It Be Managed by Machines?*, in *MANAGEMENT AND CORPORATIONS* 1985, at 17, 23 (Melvin Anshen & George Leland Bach eds., 1960) (emphasis in original) (footnote omitted).

14. See ANGUS MADDISON, *THE WORLD ECONOMY: A MILLENNIAL PERSPECTIVE* 28 (2001).

patient doubles in size every thirty-five years. But the metaphor is still incomplete, because the human economy is not only growing, it is also evolving. The economy today is simply not the same animal that was examined by Marx or Smith.

Consider for example the institution known as a corporation. This thing was unheard of in 1776, and even 1845. The idea of a business owned by the masses, with stock equity traded in a market to any commoner, simply did not exist until a series of British laws were passed in the 1850s. It is tempting to interpret the common stock corporation as a manifestation of Marx's predicted synthesis of labor and capital (though certainly not the synthesis he anticipated). A more important lesson concerns economic evolution: there is no end-state to history. For our purposes, this means the liberation of labor should not be expected to settle into a stable equilibrium.

This constant technological liberation frustrates the news media's constant attempts to describe the jobs of the future and trivializes white-collar/blue-collar distinctions. It also frustrates society's effort to plan and teach the skills of tomorrow to the children of today (or even the working adults of today). I call this uncertainty over what skills to teach for an unknowable future the "Skills Paradox." The paradox is best understood in terms of how the job mix has changed, a quantitative matter we will return to after considering Simon's answer.

## II. SIMON'S ANSWER

Herbert Simon was a polymath. He was at once an economist, a psychologist, a political scientist, and a cognitive scientist, celebrated with the top awards and honorary degrees in all of these fields.<sup>15</sup> Simon coined the term "bounded rationality" and published over one thousand articles across many disciplines, making it nearly impossible to categorize him. But he will probably be best remembered for pioneering theories and develop-

---

15. See Byron Spice, *CMU Legend Herbert Simon Dies at Age 84: Father of Artificial Intelligence and Nobel Prize Winner*, PITTSBURGH POST-GAZETTE, Feb. 10, 2001, at Obitt. A1. As Dr. Simon's obituary stated:

In addition to the Nobel, Dr. Simon was the recipient of virtually every top award in every scientific field he pursued: the A.M. Turing Award in computer science, the American Psychological Association Award for Outstanding Lifetime Contributions to Psychology, induction into the Automation Hall of Fame, the American Society of Public Administration's Dwight Waldo Award and the National Medal of Science, among them.

*Id.*

ment in what is now called artificial intelligence (AI), the science of how machines can learn to think.

Simon died in 2001 at the age of eighty-four, leaving a towering legacy as a scholar and teacher. His interest in computers began with his emphasis on the utilization of mathematical models in the social sciences, and shortly he saw that computers could be used to model human cognition itself. As described in his obituary in the *Pittsburgh Post-Gazette*, his fifty-two years of work at Carnegie-Mellon University included, "key roles in creating the computer science department and the Robotics Institute and founding the cognitive science group within the psychology department."<sup>16</sup> His legendary status as an advocate for "hard" AI, which holds that machines will be able to achieve truly human-like consciousness, makes his answer to the question of machines displacing humans somewhat ironic.

Simon was asked to write an essay for a symposium commemorating the 10th anniversary of Carnegie Mellon University, entitled, *The Corporation: Will It Be Managed by Machines?*<sup>17</sup> In that essay, and with all the caveats about the difficulty of making such predictions, Simon tried to foresee the role machines would play by the year 1985, a quarter century ahead of his time and nearly a quarter century behind ours. He broadened the question to wonder if mankind might become economically unemployable and predicted that automation would most strongly be felt in the factory and office.

Remember that the economics profession has consistently recognized the role of machinery as an enhancement to the productive power of labor. More capital per worker should mean more income per worker. Simon, however, was grounded in more than economic analysis, and was able to recognize the accelerating sophistication of computerized capital. He also possessed one of the world's finest minds for appreciating man unsentimentally as a factor of production: "a pair of eyes and ears, a brain, a pair of hands, a pair of legs, and some muscles for applying force."<sup>18</sup>

Simon suggested that many of the muscle and clerical tasks mankind had traditionally done were being overtaken by machines. Think how we celebrate sophisticated supply chains presently—a powerful example of information technology, modern transportation infrastructure, vast bar-coded inventories and automated warehouses. In one section, he wrote that the genu-

---

16. *Id.*

17. Simon, *supra* note 13.

18. *Id.* at 30.



inely workerless factory would be technically feasible long before 1985. But he dismissed “the fear of technological unemployment,” arguing that the economic effects might lead to even more demand for factory output and hence even more workers (to maintain and oversee the assembly lines, for example).<sup>19</sup>

Interestingly, Simon used the example of machine-assisted psychiatry. He was quick to warn, “we should not make the simple assumption that the higher-status occupations, and those requiring the most education, are going to be the least automated.”<sup>20</sup> A handful of examples make the case: think of the sharp decline in tax accounting due to the advent of sophisticated tax preparation software, or bank tellers being displaced by ATMs. He made a similar warning to those who imagined that machines will never have “bedside manners,” by pointing out how many people have “affective relations with such mechanism as automobiles, rolling mills—and computers.”<sup>21</sup>

Simon went on to dissect the nature of machines as they have evolved within the economy, which in retrospect continue to be designed for specific purposes (microwave ovens and cell phones) not as embodied robots that are general-purpose beings. Humankind is especially gifted in just that way: general cognition, problem solving, unbound curiosity, and creativity. Unlike computerized machines, and even unlike most natural creatures, humans are not idiot savants.<sup>22</sup>

Another Simon insight was that automation was a liberating force that allowed humans to specialize in new niches as the economic environment evolved in scale. A dynamic economy with new products and categories of service would logically be incapable of reaching an end to work. But we are still left with the skills paradox, and here Simon’s answer is ambiguous:

Finally, in the entire occupied population, a larger fraction of members than at present will be engaged in occupations where ‘personal service’ involving face-to-face human interaction is an important part of the job. I am confident

---

19. *Id.* at 52–53.

20. *Id.* at 35.

21. *Id.* at 36.

22. Richard N. Langlois’ 2002 working paper is the best summary I have found of the Simon’s predictions. He writes, “the evolution of flexible cognition is the exception, not the rule. . . . Nature’s tendency on the whole is to create idiots-savants not general-purpose problem solvers: lightning fast cheetahs, bats that echolocate, birds that navigate by the stars.” See Richard N. Langlois, *Cognitive Comparative Advantage and the Organization of Work: Lessons from Herbert Simon’s Vision of the Future* 29 (Univ. of Conn. Dep’t of Econ. Working Paper Series, Paper No. 2002-20, 2002).

in stating this conclusion; far less confident in conjecturing what these occupations will be.<sup>23</sup>

Levy and Murnane believe that Simon's 1960 essay deserves a "prize for foretelling the future" if such a prize were given.<sup>24</sup> They use it as a foundation for their own predictions about the future mix of jobs. Addressing that skills paradox may be a fool's errand for all of us, and Simon's was probably exemplary in confessing the murkiness of his own crystal ball. But one thing is clear: the murkiness is creating much higher anxiety about economic weakness than is warranted.

### III. FEARONOMICS AND THE ILLUSION OF LOST JOBS

Pessimistic news stories should come as no surprise in an industry known for the motto, "If it bleeds, it leads." During February of 2006, *Time* magazine had two cover stories that played off workplace anxiety—one on America's "secret workforce" of illegal aliens, and another asking "Is America Flunking Science?" atop a parody photo of a child scientist in an exploded laboratory.<sup>25</sup> In July of 2005, *Fortune* magazine pictured a comical rendition of "America: the 97-lb. Weakling," a sickly Uncle Sam bullied by a buff Chinese proletariat.<sup>26</sup> Alarmist articles and books were plenty popular even before the 2001 recession, of course, but they are predominant since September 11th, especially during coverage of the most recent election.<sup>27</sup> The most egregious example may be a *Washington Post* opinion article published in July 2004 which said the Bush administration's lack of an economic plan is "Just as Scary as Terror."<sup>28</sup>

To put this outrageous claim in context, realize that the author was suggesting the economic costs of terrorism were dwarfed by the cost of weak economic leadership. It may be true that the economic cost of terror has been hyped, but this becomes clear in the context of the strong, not weak, domestic economy. For example, I routinely asked my students in the semesters after 2001 to estimate how much the U.S. economy

---

23. Simon, *supra* note 13, at 38.

24. LEVY & MURNAME, *supra* note 8, at 8.

25. See Michael D. Lemonick, *Are We Losing Our Edge?*, *TIME*, Feb. 13, 2006, at 22; Nathan Thornburgh, *Inside the Life of the Migrants Next Door*, *TIME*, Feb. 6, 2006, at 36.

26. Geoffrey Colvin, *America Isn't Ready: Here's What to Do About It*, *FORTUNE*, July 25, 2005, at 70.

27. See, e.g., Dan Rather in Crisis, Media Research Ctr. (Sept. 29, 2004), available at <http://www.mrc.org/campaign/04/rather.asp>.

28. See David J. Rothkopf, *Just as Scary as Terror: Anyone Seen Our Economic Policy?*, *WASH. POST*, July 25, 2005, at B1.

grew or declined since the September 11th attacks. Inevitably, the average class answer was a decline of three to five percent, roughly four-hundred billion dollars of total production. In fact, the American economy *grew* by fifty billion dollars in the fourth quarter of 2001, immediately after the attacks.<sup>29</sup> In real terms, U.S. GDP is 13.8 percent bigger as of the final quarter of 2005 than it was during the third quarter of 2001, a real increase of 1.55 trillion dollars.<sup>30</sup> That is equivalent to adding the entire California economy (1.55 trillion dollars in 2005)<sup>31</sup> and nearly the entire French economy (2.12 trillion dollars at parity).<sup>32</sup>

If terrorism is meant to be an attack on liberal democratic capitalism, it so far amounts to a pebble cast against a tidal wave. We cannot dispute the threat of future terrorism could be much more damaging, but that is neither here nor there. If my students are representative, then the general population simply is not able to comprehend the scope of its prosperity. Psychologically, the attacks of September 11th have made a mark, and it is an event where "terror" has been referenced, so would say manipulated, to score political points. Democrats accuse Republicans of using September 11th to stoke fears, but Democrats stand accused of demagoguery on economic anxiety just the same.

In a purely political context, the jobless recovery stands as an indictment of George W. Bush. Even after Bush won the 2004 presidential election, confidence in his economic leadership continued to erode. According to a recent Ipsos poll, "[President] Bush's marks on overall job approval and for handling the economy are near their lowest level . . . . Bush's job approval is now at 40 percent and his approval on handling the economy at 39 percent."<sup>33</sup> Fully seventy-two percent of respondents to Gallup's mid-October 2005 poll registering a negative view of the economy,

---

29. See Eugene P. Seskin et al., Bureau of Econ. Analysis, U.S. Dep't of Commerce, *Annual Revision of the National Income and Product Accounts, Annual Estimates for 2002–2004: Quarterly Estimates for 2002:1–2005:1*, SURVEY OF CURRENT BUS., Aug. 2005, at 13, 14–15, available at [http://www.bea.gov/bea/ARTICLES/2005/08August/0805\\_NIPA\\_Revision.pdf](http://www.bea.gov/bea/ARTICLES/2005/08August/0805_NIPA_Revision.pdf).

30. Author calculations are from the Bureau of Econ. Analysis, U.S. Dep't of Commerce data. See *id.*

31. See *id.*

32. ORG. FOR ECON. CO-OPERATION & DEV., QUARTERLY NAT'L ACCOUNTS FOR OECD MEMBER COUNTRIES, GROSS DOMESTIC PRODUCT 267 (Apr. 2006), available at <http://www.oecd.org/dataoecd/48/4/33727936.pdf>.

33. See *Bush's Approval Rating Plummets*, W. MORNING NEWS (Plymouth, UK), Feb. 11, 2006, at 23.

rating it one of the two worst options of "Only Fair" or "Poor."<sup>34</sup> This is slightly better than 2003 but actually worse than 2004. In contrast, four years after the 1992 recession, the percentage of negative responses in the Gallup poll had shrunk nearly in half, from ninety percent to fifty-two percent. The macroeconomic indicators were arguably better in 2005 than in 1996, so why the difference in opinions?

The existence of liberal media bias is one explanation that cannot be brushed aside. New research confirms that major news networks accentuate negative indicators over positive ones, especially when the Republican Party holds power,<sup>35</sup> and it has maintained control of the House of Representatives, Senate, and Presidency since January 2001. However, Republicans bear some blame themselves, especially that caucus of anti-immigrant voices who blame illegal aliens for stealing American jobs and depressing American wages. It cannot be true that the economy is doing well thanks to tax cuts, but poorly because of immigrants—or poorly because of high oil prices, but well due to the housing boom.

But the dearth of job creation from 2002–2004 represents something deeper: an affront to free market economics. It fulfills capitalism's worst image as good for rich capitalists at the expense of alienated workers. Among academics, the concept of jobless recovery—in which gross domestic production (GDP) expands while labor markets contract—is a paradox, contrary to theory and history. Oddly, only one labor indicator is negative: total nonfarm employment.

The primary source of official employment statistics is the U.S. Department of Labor, which publishes the "Employment Situation" on the first Friday of each month.<sup>36</sup> Two numbers, new

---

34. Jeffrey M. Jones, *Public's Economic Outlook Remains Pessimistic*, GALLUP POLL NEWS SERVICE, Oct. 19, 2005, LEXIS, News and Business ("Gallup's Oct. 13–16 poll finds that economic ratings continue to be fairly negative, with only 28% of Americans rating current conditions as excellent (3%) or good (25%). Twenty-six percent rate them as poor.").

35. In their survey of major newspaper headlines, John R. Lott and Kevin A. Hassett find, "For all the newspapers, Republicans receive between 9.6 and 14.7 percentage points less positive coverage than Democrats and the differences are statistically significant at least at the 1 percent level for a two-tailed t-test. That is about 20 to 30 percent less positive coverage . . ." JOHN R. LOTT & KEVIN A. HASSETT, AM. ENTER. INST., *IS NEWSPAPER COVERAGE OF ECONOMIC EVENTS POLITICALLY BIASED?* 14 (2004), available at [http://www.aei.org/docLib/20040913\\_588453%5B1%5D.pdf](http://www.aei.org/docLib/20040913_588453%5B1%5D.pdf).

36. BUREAU OF LABOR STATISTICS, U.S. DEP'T OF LABOR, *EMPLOYMENT SITUATION SUMMARY: MARCH 2006* (2006), [http://www.bls.gov/news.release/archives/empsit\\_04072006.pdf](http://www.bls.gov/news.release/archives/empsit_04072006.pdf) [hereinafter *EMPLOYMENT SITUATION SUMMARY*].

payroll jobs and the unemployment rate, are the headlines for the day. Often overlooked is that the monthly report is made up of two parts: the larger, indirect *payroll survey* and the smaller, but more direct *household survey*.

Both surveys report a different sum total of U.S. employment. Growth in payroll jobs may be different than the growth in total workers from one month to the next, but the surveys consistently reported the same trends over the years. Suddenly after 2001, the two surveys diverged widely, a break in magnitude that had no precedent.<sup>37</sup>

In 2002, the payroll survey reported a net loss of half a million jobs, while the household survey reported a net *gain* of the same amount. Amazingly, the divergence widened further in 2003 when payrolls finally experienced a net gain of one-hundred thousand jobs, dwarfed by the gain of 1.3 million in the household survey.<sup>38</sup> The two surveys seemed to be in alignment again in 2004 when both reported gains of 2.1 million jobs. But household numbers surged again in 2005, outpacing payrolls 2.5 million compared to 1.8 million.<sup>39</sup> As a consequence, we are living in an era when one employment survey shows month after month of record highs while the other gives credence to the illusion of a jobless recovery.

In early 2004, in response to incessant queries on the payroll-household puzzle, the BLS began issuing a sixteen-page document on the same date of the monthly employment report, in which it reconciles the two surveys. This exercise aims to make payroll apples comparable to household oranges. After peeling away non-payroll and other workers from the household survey's total, the reconciliation document reveals that the divergence of three million does not go away, but in fact gets worse.<sup>40</sup> What that means in plain terms is that the government's experts, and they are very smart people, do not know what is happening to the labor force any better than you do.

One possible cause of the payroll-household divergence is loaded with irony: the dynamic economy itself creates an illusion in the payroll data. We know that payrolls systematically double-count people who change jobs, though this was considered a neg-

---

37. See TIM KANE, HERITAGE FOUND., CTR. FOR DATA ANALYSIS REPORT #04-03, *DIVERGING EMPLOYMENT DATA: A CRITICAL VIEW OF THE PAYROLL SURVEY* (2004), available at <http://www.heritage.org/Research/Labor/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=57715>.

38. Author calculations are from the Bureau of Labor Statistics, U.S. Dep't of Labor data.

39. *Id.*

40. See EMPLOYMENT SITUATION SUMMARY, *supra* note 35.

ligible problem until it was highlighted by Congressman David Dreier.<sup>41</sup> Consider that during a typical month in the 1990s, three percent of all workers changed employers.<sup>42</sup> Roughly four million people were counted on two payrolls every month.<sup>43</sup> So when that rate of turnover declined after September 11th, the payroll survey reported an illusory job loss.

#### IV. THE EVOLVING WORKFORCE

It is no surprise that the conventional paradigm of labor markets is unable to explain the weakness of the payroll survey. That view is static, and it imagines the economy as an equilibrium. But equilibrium analysis, as Joseph Schumpeter explained long ago, misses the central element of dynamic change in the capitalist engine.

The static view emphasizes net changes in employment from month to month. But for every one net job added, the real economy is dynamically destroying eight jobs while creating nine new ones. By the same token, a steady "natural" unemployment rate of five percent masks the fact that the typical unemployment spell lasts only a couple of months. The reality of free labor markets today is one of constant churn. A longitudinal study by the Labor Department documented an average of 9.6 jobs for baby boomers over their first eighteen adult working years.<sup>44</sup> Most people understand this intuitively, since the common American experience is to change employers often, with months of non-employment between some jobs, and overlaps of vacation time between others.

Dynamism means more than churn, however. The composition of jobs is evolving away from production and towards services. For example, the number and percentage of people needed to supply agricultural products during one year is always more than during succeeding years. The enhancement of worker productivity means that it takes fewer workers for the same amount of output. Nowhere has that productivity dynamism been more evident than in the manufacture of goods during the latter half of the 20th century.

---

41. See 152 CONG. REC. H303 (daily ed. Feb. 15, 2006) (statement of Rep. David Dreier).

42. See BUREAU OF LABOR STATISTICS, U.S. DEP'T OF LABOR, WOMEN IN THE LABOR FORCE: A DATABOOK 66, tbl.31 (2004), available at <http://www.bls.gov/cps/wlf-databook.pdf>.

43. Tim Kane & Andrew Grossman, *The Jobs Numbers That You're NOT Hearing About*, USA TODAY, Aug. 26, 2004, at 15A.

44. See *Labor Month in Review*, MONTHLY LAB. REV., Sept. 2002, at 2.

The number Americans employed in the manufacturing sector dropped from 17.3 million in 2000 to 14.2 million in 2005.<sup>45</sup> The peak year was 1979 at 19.4 million, which represented twenty-two percent of the total workforce.<sup>46</sup> Last year, only eleven percent of workers were in manufacturing, while 83.4 percent were in service-providing jobs in 2005 (the highest ever).<sup>47</sup> The long-awaited service economy isn't coming. It arrived long ago.

But are jobs in the service sector worthwhile? Service sector jobs are often professional in nature, and are generally much better paying and safer than the blue-collar trades of last century. We tend to glorify the jobs of our hard-working ancestors as sacred, even though in many instances they are jobs that our ancestors would not wished on us. Few mothers dream of their children working in the dangerous factories and mines of yesteryear. Indeed, the Federal Reserve Bank of Dallas featured an interesting chart in its 2000 Annual Report which showed that workers employed in the "20 Worst Jobs" declined from sixteen percent in 1900 to under five percent in 2000.<sup>48</sup>

Of course, many workers classified as "manufacturing" never have and never will twist a bolt, or even visit a factory floor. Industrial managers, accountants, sales representatives, and engineers are all classified as manufacturers in payroll data if they are employed by a manufacturing company. The numbers above are based on industrial classification. A more accurate perspective may be occupational, which counts managers, accountants, and marketers as information workers.

In fact, the annual U.S. Census asks people what they do for a living. In 2000, just under nineteen million people reported working in "production" which includes actual manufacturing workers.<sup>49</sup> There are also eleven million non-farm "managers," 26.2 million "professional" workers, and 34.6 million "sales and office" workers.<sup>50</sup> To put manufacturing in further perspective,

---

45. See EMPLOYMENT SITUATION SUMMARY, *supra* note 36.

46. See Bureau of Labor Statistics, U.S. Dep't of Labor, Table B-1: Employees on Nonfarm Payrolls by Industry Sector, <http://www.bls.gov/webapps/legacy/cesbtbl1.htm> (last visited Apr. 27, 2006) (click the "Manufacturing" box, retrieve data, and expand the years displayed to show all data).

47. See EMPLOYMENT SITUATION SUMMARY, *supra* note 36.

48. FED. RESERVE BANK OF DALLAS, HAVE A NICE DAY! THE AMERICAN JOURNEY TO BETTER WORKING CONDITIONS: ANNUAL REPORT 2000, at 19 (2000), *available at* <http://www.dallasfed.org/fed/annual/2000/ar00.pdf>.

49. CENSUS 2000 BRIEF, U.S. CENSUS BUREAU, SELECTED OCCUPATIONAL GROUPS AND SUBGROUPS BY SEX FOR THE UNITED STATES: 2000, at tbl.1 (2003), *available at* <http://www.census.gov/prod/2003pubs/c2kbr-25.pdf>.

50. *Id.*

there are more people doing “construction” and “maintenance” work in the U.S. than there are actually producing new goods.<sup>51</sup> There are half as many health-care providers as manufacturers.<sup>52</sup> All this means that human beings are not needed in large numbers to produce the food, clothing, and even durable goods that are a society consumes. We have largely been liberated from these basic economic functions.

By 1990, information-related jobs were the dominant occupational sector, employing three of every five workers in America. The ascendancy of brain work is the predominant trend of the last century, and seems more than likely to continue.

Details on occupational shifts seem to indicate that most of the job losses in industry are exactly what Simon predicted: automation of repetitive muscle jobs on the assembly line, even as design and maintenance positions hold steady.<sup>53</sup> Human labor is being liberated from the dangerous factory floor of the twentieth century, just as it was liberated from the tedium of farm life.

Policymakers must grapple with the reality, not of recession and recovery, but a unique evolutionary *restructuring* of the workforce. It involves the demise of whole industries and the rise of unforeseen ones. It involves massive investments in new physical capital, sensitive to tax laws and interest rates. And it hurtles workers into new occupations and industries with entirely new skill sets for which they are not trained. Or does it?

I call this the invisible backhand argument. Normally, I use the term “invisible backhand” to describe an uncaring market which is ignorant of anything that is not participating as a supplier or consumer. A market of ten participants is ignorant and unsympathetic to an eleventh person. But I use the term in the present context to describe a scene in which the pace of technological change is accelerating, rewarding some workers who can keep pace, but leaving many more behind. It is a compelling story, but I doubt it is true.

The skills gap is a fundamental thread in the worker angst fabric, but it is deeply in need of some critical examination. Let’s play devil’s advocate. Think of a company or co-worker that you admire. Is what you admire a skill-set narrowly defined? I suspect that the skills most valuable to the future are broad skills: integrity, dependability, intelligence, adaptability, friendliness. Soft skills, not hard, are what define us. And those hard skills

---

51. *Id.*

52. *Id.*

53. Simon, *supra* note 13, at 52–53.



that matter most are general-purpose abilities like creativity, teamwork, and problem-solving.

## V. PARADOX RESOLVED

If displaced workers were, in fact, starting from zero each time an industry was being liberated by technology, then what explains the persistent rise in worker productivity coupled with low unemployment? One of the populist explanations for the jobless recovery of 2002–2003 was that high productivity was destroying jobs permanently, and that higher unemployment rates must obtain.

What we do know is that waves of labor dislocation have yet to fulfill dystopian predictions of mass unemployment. The unemployment rate in the U.S. stands below five percent, and has declined dramatically in the years since Hacker and others began issuing dire warnings about rising insecurity, jobs being outsourced to China, and the demise of great American companies like AT&T and General Motors.

The most persistent explanation for the low unemployment rate is a true canard: it does not count discouraged workers. In fact, “discouraged” workers have been counted in Labor Department surveys since 1994, and there are no more now than during the typical month in the 1990s. Another common argument is that the employment-to-population ratio has fallen sharply and stayed down. This too is a ruse, since the labor force participation rate started dropping before the 2001 recession when so many baby boomers started to retire (early and healthy). More importantly, the reason why a smaller portion of Americans work is much more interesting than the alarmists let on: half to two-thirds of the decline is due to the cohort of sixteen to nineteen year-olds who are choosing not to enter the labor force at all.<sup>54</sup> No pessimistic explanation exists for this, but more kids in school is certainly not a harmful prospect.

And make no mistake, the U.S. is productive. In one way, America is defying traditional economic theory by pushing out the frontier of productivity even faster than other advanced economies can catch up. When Japan’s GDP grows at two percent a year, it is still far below the U.S. in per capita production terms. But when U.S. GDP grows each quarter, it advances further into the uncharted frontier of potential human output. The miracle of the new economy is that American output per person seems to be accelerating, not just growing, in sharp contrast to

---

54. EMPLOYMENT SITUATION SUMMARY, *supra* note 36, at tbl.A–1.

the perception of professional economists a decade ago. The infamous productivity slow-down of the late 1970s is now seen as a hiccup, not a plateau, and productivity is growing at 3.8 percent annually since 2000.<sup>55</sup>

In sum, the post-2001 data paint a picture of a workforce not in duress, but in metamorphosis. We live in Herbert Simon's world, even though he offered no resolution for what jobs come next. As I discussed above, I am less willing to take the skills paradox seriously. I remain unconvinced that there are any three skills more important than "reading, writing, and arithmetic." These skills are easy to deride as pedantic, but they do not hone without higher cognitive functions (creativity and learning to learn) that are the true magic of human capital.

So the question remains: what are those jobs of the future?

I frankly think the answer is easy to see, for it is not a question of supply, but of demand. Forecasting jobs of the future depends entirely on the consumption trends of the future and prices. Here is the key: as goods become ever cheaper, where will Americans choose to spend money? Entertainment, education, health, and construction. Who can deny the rise of entertainment as a massive industry? Hollywood and Las Vegas embody the trend, as does the professionalization of sports and the literal rise of massive sports arenas in every major city. Meanwhile, health care continues to take a larger percentage of total consumption every year. This is partly a sign of a dysfunctional health system, but also represents real gains in quality and longevity. It is hard to imagine less spending on health care in the century ahead, or fewer jobs in that sector.

The liberation of labor allows humans to return to fundamentals: nurturing the young and old, expanding the mind.

The real question to me is not actually that one left unanswered by Simon. I have little doubt what the new jobs will be, at least over the horizon of my potential lifetime. Rather, I wonder how the political institutions will handle the growing anxiety of rapid technological change once a major business cycle hits, and if you believe that cycles are natural, then this hit is inevitable. While recovery should be easy, the political reaction is likely to gum up the process of liberation permanently.

---

55. *Gains in U.S. Productivity: Stopgap Measures or Lasting Change?*, FRBSB ECON. LETTER (Fed. Reserve Bank of S.F., S.F., Cal.) (Mar. 11, 2005), available at <http://www.frbsf.org/publications/economics/letter/2005/el2005-05.pdf> (stating that productivity growth is accelerating twice as fast as the previous two decades, and averaging 3.8 percent during 2001–2004).

The central near-horizon challenge of modern capitalism is constant, unpredictable change in demand for different workers and skills. The debate among policymakers is how to guide the transition to new skill sets. On one side are the fading industries and unions which use their leverage to subsidize the past. On the other side is the *laissez-faire* solution: do nothing. A third approach is proposed by new-fashioned statisticians who perceive a need for new worker skills, but address the need with centralized training programs. But a fourth policy option exists.

A liberation framework suggests that core skills matter most, meaning that government should focus on early education and literacy. Economic theory also suggests that interventions work most effectively when the consumer, not the supplier, is subsidized. Let the lifelong student use government money to select a training program, which is supplied by the free market. Ideally, the American people will utilize the experimental diversity of fifty states rather than a single, inflexible national standard when it devises new policies to address the skills paradox.

What of the longer horizon of capitalism? Will the acceleration of technology outpace our ability to retrain to new skills and refrain from protecting older occupations? Will automation breed a laziness and dependency among men, creating what Nietzsche called the "last man," without dignity, bravery, or yearning?<sup>56</sup> Likewise, will competitive capitalism give way, as Joseph Schumpeter predicated, to a new form of socialism, since only massive firms with state-insured grants be able to afford and coordinate the ever-larger R&D research necessary to create new technology?

The computer and Internet revolutions of recent decades provide some answers. The prominent success of so many rebellious entrepreneurs tells us all we need to know about the Last Man. The new business model that relies more on acquisitions of small startups as superior to in-house R&D also debunks the notion of socialized technology development. Rather than an army of Organization Man (and woman), modernity delivered Steve Jobs, Larry Page, Barry Diller, Michael Jordan, and Mia Hamm. The instinct to compete and dominate has not been tamed or extinguished, but rather been channeled by free markets into productive, creative venues.

But we do well to remember that modernity also yielded Mother Teresa and Pat Tillman. Humans are blessed with will-

---

56. FRIEDRICH NIETZSCHE, *WILL TO POWER* 459 (Walter Kaufmann ed., Walter Kaufmann & R.J. Hollingdale trans., Vintage Books 1968) (1901).

power, yes, but also an enduring sense of service to our fellow man. With that in mind, one doubts we will ever run out of work.

